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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,400	12/15/2000	Prathima Agrawal	1279-US	8828

9941 7590 06/25/2004

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EXAMINER

IQBAL, KHAWAR

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 06/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

14

## Office Action Summary

Application No.

09/737,400

Applicant(s)

AGRAWAL ET AL.

Examiner

Khawar Iqbal

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3,5-10,12-18 are rejected under 35 U.S.C. 102(e) as being unpatentable by Sundqvist et al (20010032262).

3. Regarding claim 1 Sundqvist et al teaches a method for reserving resources in a wireless network to accommodate the resource demands of traffic, said method comprising the steps of (Para. # 22):

monitoring a resource to obtain a resource value (para. # 0052-0053);

predicting radio dependent (wireless) and radio independent (wireline, IP) layer resources needed for future calls based on said monitored resource value (para. # 0052-0054,0069-0070); and

reserving said needed resources at the radio dependent and radio independent layer based on said prediction (para. # 0052-0054,0069-0070).

Regarding claim 2 Sundqvist et al teaches wherein said monitoring step further includes the step of monitoring handoff call arrivals, resource requirement, and resource usage (para. # 0055, 0022).

Regarding claim 3 Sundqvist et al teaches updating the rate at which said predicting is done if the difference in resource usage is greater than or equal to a pre-determined value (para. # 0055, 0049).

Regarding claim 5 Sundqvist et al teaches calls are handoff calls (para. # 0055).

Regarding claim 6 Sundqvist et al teaches wherein said calls are new calls originating within a cell (para # 0055, 0022).

Regarding claim 7 Sundqvist et al teaches wherein said calls are handoff calls and new calls originating within a cell (para # 0055, 0022).

Regarding claim 8 Sundqvist et al teaches a method for reserving resources in a mobile wireless Internet protocol network to accommodate future resources demands of used, said method comprising the steps at a base station of (para. # 0022):

monitoring call arrivals and resource requirements (para. # 0052-0053);

responsive to said monitoring, predicting the radio dependent radio independent resources required (para. # 0052-0054,0069-0070); and

instructing radio dependent radio independent layers to reserve the predicted resources for the future call (para. # 0052-0054,0069-0070).

Regarding claim 9 Scholefield et al teaches estimating step resides at a radio-independent layer of the internet protocol (para. # 0052-0054,0069-0070).

Regarding claim 10 Sundqvist et al teaches increasing the rate of said monitoring step if the difference in resource usage is greater than or equal to a threshold value (para. # 0055, 0049).

Regarding claim 12 Sundqvist et al teaches wherein said estimating step resides at a radio-independent layer of the internet protocol (para. # 0052-0054,0069-0070).

Regarding claim 13 Sundqvist et al teaches calls are handoff calls (para # 0055, 0022).

Regarding claim 14 Sundqvist et al teaches wherein said calls are new calls originating within a cell (para # 0055, 0022).

Regarding claim 15 Sundqvist et al teaches wherein said calls are handoff calls and new calls originating within a cell (para # 0055, 0022).

Regarding claim 16 Sundqvist et al teaches wherein said step of monitoring monitors instantaneous values of handoff call arrivals and resource requirements (para # 0055, 0022).

Regarding claim 17 Sundqvist et al teaches wherein said instructing step causes reservation of both radio resources and Internet protocol layer resources (para. # 0052-0054,0069-0070).

Regarding claim 18 Sundqvist et al teaches wherein said estimating step is based on a stochastic model (para. # 0052-0054,0069-0070).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Sundqvist et al (20010032262) and further in view of Saunders (5909649).

Regarding claim 4 and 11 Sundqvist et al teaches wherein said step of predicting further includes the step of modeling the resources (para. # 0052-0054,0069-0070. Sundqvist et al does not specifically teach Wiener process.

In an analogous art, Saunders teaches Wiener process (col. 3, lines 40-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Sundqvist et al by specifically adding features in order to enhance system performance of radio layers using Wiener process purpose of minimizes interference between signals sharing same channel and increases accuracy of handover decisions, esp. in highly scattering environment increasing the efficiency of system as taught by Saunders.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is 703-306-3015.

Art Unit: 2686

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **BANKS-HAROLD, MARSHA**, can be reached at 703-305-4379.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2684 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

**Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.**

Khawar Iqbal

  
**CHARLES APPIAH**  
**PRIMARY EXAMINER**